SEQUENCE LISTING

<110> Gentz, Reiner et al.

<120> Tumor Necrosis Factor Receptors 6 Alpha and 6 Beta

<130> PF454

<140> 09/006,352
<141> 1998-01-13

<150> 60/035,496
<151> 1997-01-14

<160> 24

<170> PatentIn Ver. 2.1

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<220>
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<222> (25)..(924)

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                           Met Arg Ala Leu Glu Gly Pro Gly Leu
                            1                   5


tcg ctg ctg tgc ctg gtg ttg gcg ctg cct gcc ctg ctg ccg gtg ccg       99
Ser Leu Leu Cys Leu Val Leu Ala Leu Pro Ala Leu Leu Pro Val Pro
 10              15                  20                  25


gct gta cgc gga gtg gca gaa aca ccc acc tac ccc tgg cgg gac gca      147
Ala Val Arg Gly Val Ala Glu Thr Pro Thr Tyr Pro Trp Arg Asp Ala
                30                  35                  40


gag aca ggg gag cgg ctg gtg tgc gcc cag tgc ccc cca ggc acc ttt      195
Glu Thr Gly Glu Arg Leu Val Cys Ala Gln Cys Pro Pro Gly Thr Phe
                45                  50                  55


gtg cag cgg ccg tgc cgc cga gac agc ccc acg acg tgt ggc ccg tgt      243
Val Gln Arg Pro Cys Arg Arg Asp Ser Pro Thr Thr Cys Gly Pro Cys
            60                  65                  70


cca ccg cgc cac tac acg cag ttc tgg aac tac ctg gag cgc tgc cgc      291
Pro Pro Arg His Tyr Thr Gln Phe Trp Asn Tyr Leu Glu Arg Cys Arg
        75                  80                  85


tac tgc aac gtc ctc tgc ggg gag cgt gag gag gag gca cgg gct tgc      339
Tyr Cys Asn Val Leu Cys Gly Glu Arg Glu Glu Glu Ala Arg Ala Cys
 90                  95                  100                 105


cac gcc acc cac aac cgt gcc tgc cgc tgc cgc acc ggc ttc ttc gcg      387
His Ala Thr His Asn Arg Ala Cys Arg Cys Arg Thr Gly Phe Phe Ala
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                    110                 115                 120

cac gct ggt ttc tgc ttg gag cac gca tcg tgt cca cct ggt gcc ggc   435
His Ala Gly Phe Cys Leu Glu His Ala Ser Cys Pro Pro Gly Ala Gly
            125                 130                 135

gtg att gcc ccg ggc acc ccc agc cag aac acg cag tgc cag ccg tgc   483
Val Ile Ala Pro Gly Thr Pro Ser Gln Asn Thr Gln Cys Gln Pro Cys
            140                 145                 150

ccc cca ggc acc ttc tca gcc agc agc tcc agc tca gag cag tgc cag   531
Pro Pro Gly Thr Phe Ser Ala Ser Ser Ser Ser Ser Glu Gln Cys Gln
    155                 160                 165

ccc cac cgc aac tgc acg gcc ctg ggc ctg gcc ctc aat gtg cca ggc   579
Pro His Arg Asn Cys Thr Ala Leu Gly Leu Ala Leu Asn Val Pro Gly
170                 175                 180                 185

tct tcc tcc cat gac acc ctg tgc acc agc tgc act ggc ttc ccc ctc   627
Ser Ser Ser His Asp Thr Leu Cys Thr Ser Cys Thr Gly Phe Pro Leu
                190                 195                 200

agc acc agg gta cca gga gct gag gag tgt gag cgt gcc gtc atc gac   675
Ser Thr Arg Val Pro Gly Ala Glu Glu Cys Glu Arg Ala Val Ile Asp
            205                 210                 215

ttt gtg gct ttc cag gac atc tcc atc aag agg ctg cag cgg ctg ctg   723
Phe Val Ala Phe Gln Asp Ile Ser Ile Lys Arg Leu Gln Arg Leu Leu
            220                 225                 230

cag gcc ctc gag gcc ccg gag ggc tgg ggt ccg aca cca agg gcg ggc   771
Gln Ala Leu Glu Ala Pro Glu Gly Trp Gly Pro Thr Pro Arg Ala Gly
    235                 240                 245

cgc gcg gcc ttg cag ctg aag ctg cgt cgg cgg ctc acg gag ctc ctg   819
Arg Ala Ala Leu Gln Leu Lys Leu Arg Arg Arg Leu Thr Glu Leu Leu
250                 255                 260                 265

ggg gcg cag gac ggg gcg ctg ctg gtg cgg ctg ctg cag gcg ctg cgc   867
Gly Ala Gln Asp Gly Ala Leu Leu Val Arg Leu Leu Gln Ala Leu Arg
                270                 275                 280

gtg gcc agg atg ccc ggg ctg gag cgg agc gtc cgt gag cgc ttc ctc   915
Val Ala Arg Met Pro Gly Leu Glu Arg Ser Val Arg Glu Arg Phe Leu
                285                 290                 295

cct gtg cac tgatcctggc ccctcttat ttattctaca tccttggcac           964
Pro Val His
            300

cccacttgca ctgaaagagg ctttttttta aatagaagaa atgaggtttc ttaaagctta 1024

tttttataaa gctttttcat aaaaaaaaaa aaaaaaaaaa aaaaaaaaa aaa         1077


<210> 2
<211> 300
<212> PRT
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<213> Homo sapiens

<400> 2

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Met Arg Ala Leu Glu Gly Pro Gly Leu Ser Leu Leu Cys Leu Val Leu
 1                   5                  10                  15

Ala Leu Pro Ala Leu Leu Pro Val Pro Ala Val Arg Gly Val Ala Glu
            20                  25                  30

Thr Pro Thr Tyr Pro Trp Arg Asp Ala Glu Thr Gly Glu Arg Leu Val
            35                  40                  45

Cys Ala Gln Cys Pro Pro Gly Thr Phe Val Gln Arg Pro Cys Arg Arg
    50                  55                  60

Asp Ser Pro Thr Thr Cys Gly Pro Cys Pro Pro Arg His Tyr Thr Gln
65                  70                  75                  80

Phe Trp Asn Tyr Leu Glu Arg Cys Arg Tyr Cys Asn Val Leu Cys Gly
                85                  90                  95

Glu Arg Glu Glu Glu Ala Arg Ala Cys His Ala Thr His Asn Arg Ala
            100                 105                 110

Cys Arg Cys Arg Thr Gly Phe Phe Ala His Ala Gly Phe Cys Leu Glu
            115                 120                 125

His Ala Ser Cys Pro Pro Gly Ala Gly Val Ile Ala Pro Gly Thr Pro
    130                 135                 140

Ser Gln Asn Thr Gln Cys Gln Pro Cys Pro Pro Gly Thr Phe Ser Ala
145                 150                 155                 160

Ser Ser Ser Ser Ser Glu Gln Cys Gln Pro His Arg Asn Cys Thr Ala
                165                 170                 175

Leu Gly Leu Ala Leu Asn Val Pro Gly Ser Ser Ser His Asp Thr Leu
            180                 185                 190

Cys Thr Ser Cys Thr Gly Phe Pro Leu Ser Thr Arg Val Pro Gly Ala
    195                 200                 205

Glu Glu Cys Glu Arg Ala Val Ile Asp Phe Val Ala Phe Gln Asp Ile
    210                 215                 220

Ser Ile Lys Arg Leu Gln Arg Leu Leu Gln Ala Leu Glu Ala Pro Glu
225                 230                 235                 240

Gly Trp Gly Pro Thr Pro Arg Ala Gly Arg Ala Ala Leu Gln Leu Lys
            245                 250                 255

Leu Arg Arg Arg Leu Thr Glu Leu Leu Gly Ala Gln Asp Gly Ala Leu
            260                 265                 270

Leu Val Arg Leu Leu Gln Ala Leu Arg Val Ala Arg Met Pro Gly Leu
            275                 280                 285

Glu Arg Ser Val Arg Glu Arg Phe Leu Pro Val His
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290   295   300

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<213> Homo sapiens

<220>
<221> CDS
<222> (73)..(582)

<400> 3
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ccagcaagga cc atg agg gcg ctg gag ggg cca ggc ctg tcg ctg ctg tgc 111
               Met Arg Ala Leu Glu Gly Pro Gly Leu Ser Leu Leu Cys
               1   5   10

ctg gtg ttg gcg ctg cct gcc ctg ctg ccg gtg ccg gct gta cgc gga   159
Leu Val Leu Ala Leu Pro Ala Leu Leu Pro Val Pro Ala Val Arg Gly
    15   20   25

gtg gca gaa aca ccc acc tac ccc tgg cgg gac gca gag aca ggg gag   207
Val Ala Glu Thr Pro Thr Tyr Pro Trp Arg Asp Ala Glu Thr Gly Glu
30   35   40   45

cgg ctg gtg tgc gcc cag tgc ccc cca ggc acc ttt gtg cag cgg ccg   255
Arg Leu Val Cys Ala Gln Cys Pro Pro Gly Thr Phe Val Gln Arg Pro
                50   55   60

tgc cgc cga gac agc ccc acg acg tgt ggc ccg tgt cca ccg cgc cac   303
Cys Arg Arg Asp Ser Pro Thr Thr Cys Gly Pro Cys Pro Pro Arg His
                65   70   75

tac acg cag ttc tgg aac tac ctg gag cgc tgc cgc tac tgc aac gtc   351
Tyr Thr Gln Phe Trp Asn Tyr Leu Glu Arg Cys Arg Tyr Cys Asn Val
            80   85   90

ctc tgc ggg gag cgt gag gag gag gca cgg gct tgc cac gcc acc cac   399
Leu Cys Gly Glu Arg Glu Glu Glu Ala Arg Ala Cys His Ala Thr His
        95   100   105

aac cgt gcc tgc cgc tgc cgc acc ggc ttc ttc gcg cac gct ggt ttc   447
Asn Arg Ala Cys Arg Cys Arg Thr Gly Phe Phe Ala His Ala Gly Phe
110   115   120   125

tgc ttg gag cac gca tcg tgt cca cct ggt gcc ggc gtg att gcc ccg   495
Cys Leu Glu His Ala Ser Cys Pro Pro Gly Ala Gly Val Ile Ala Pro
                130   135   140

ggt gag agc tgg gcg agg gga ggg gcc ccc agg agt ggt ggc cgg agg   543
Gly Glu Ser Trp Ala Arg Gly Gly Ala Pro Arg Ser Gly Gly Arg Arg
                145   150   155

tgt ggc agg ggt cag gtt gct ggt ccc agc ctt gca ccc tgagctagga   592
Cys Gly Arg Gly Gln Val Ala Gly Pro Ser Leu Ala Pro

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          160                165                170
caccagttcc cctgaccctg ttcttccctc ctggctgcag gcacccccag ccagaacacg 652

cagtgccagc cgtgcccccc aggcaccttc tcagccagca gctccagctc agagcagtgc 712

cagccccacc gcaactgcac ggccctgggc ctggccctca atgtgccagg ctcttcctcc 772

catgacaccc tgtgcaccag ctgcactggc ttccccctca gcaccagggt accaggtgag 832

ccagaggcct gagggggcag cacactgcag gccaggccca cttgtgccct cactcctgcc 892

cctgcacgtg catctagcct gaggcatgcc agctggctct gggaaggggc acagtggat 952

ttgaggggtc agggtccct ccactagatc cccaccaagt ctgccctctc aggggtggct 1012

gagaatttgg atctgagcca gggcacagcc tccctggag agctctggga aagtgggcag 1072

caatctccta actgcccgag gggaaggtgg ctggctcctc tgacacgggg aaaccgaggc 1132

ctgatggtaa ctctcctaac tgcctgagag gaaggtggct gcctcctctg acatggggaa 1192

accgaggccc aatgttaacc actgttgaga agtcacaggg ggaagtgacc cccttaacat 1252

caagtcaggt ccggtccatc tgcaggtccc aactcgcccc ttccgatggc ccaggagccc 1312

caagcccttg cctgggcccc cttgcctctt gcagccaagg tccgagtggc cgctcctgcc 1372

ccctaggcct ttgctccagc tctctgaccg aaggctcctg ccccttctcc agtccccatc 1432

gttgcactgc cctctccagc acggctcact gcacagggat ttctctctcc tgcaaacccc 1492

ccgagtgggg cccagaaagc agggtacctg gcagcccccg ccagtgtgtg tgggtgaaat 1552

gatcggaccg ctgcctcccc accccactgc aggagctgag gagtgtgagc gtgccgtcat 1612

cgactttgtg gctttccagg acatctccat caagaggagc ggctgctgca ggccc     1667
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<210> 4
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<212> PRT
<213> Homo sapiens

<400> 4
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Met Arg Ala Leu Glu Gly Pro Gly Leu Ser Leu Leu Cys Leu Val Leu
 1               5                  10                  15

Ala Leu Pro Ala Leu Leu Pro Val Pro Ala Val Arg Gly Val Ala Glu
             20                  25                  30

Thr Pro Thr Tyr Pro Trp Arg Asp Ala Glu Thr Gly Glu Arg Leu Val
         35                  40                  45

Cys Ala Gln Cys Pro Pro Gly Thr Phe Val Gln Arg Pro Cys Arg Arg
     50                  55                  60

Asp Ser Pro Thr Thr Cys Gly Pro Cys Pro Pro Arg His Tyr Thr Gln
```

```
         65                      70                       75                       80
Phe Trp Asn Tyr Leu Glu Arg Cys Arg Tyr Cys Asn Val Leu Cys Gly
                85                      90                      95

Glu Arg Glu Glu Glu Ala Arg Ala Cys His Ala Thr His Asn Arg Ala
               100                     105                     110

Cys Arg Cys Arg Thr Gly Phe Phe Ala His Ala Gly Phe Cys Leu Glu
               115                     120                     125

His Ala Ser Cys Pro Pro Gly Ala Gly Val Ile Ala Pro Gly Glu Ser
    130                     135                     140

Trp Ala Arg Gly Gly Ala Pro Arg Ser Gly Gly Arg Arg Cys Gly Arg
145                     150                     155                     160

Gly Gln Val Ala Gly Pro Ser Leu Ala Pro
               165                     170
```

<210> 5
<211> 455
<212> PRT
<213> Homo sapiens

<400> 5
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Met Gly Leu Ser Thr Val Pro Asp Leu Leu Leu Pro Leu Val Leu Leu
  1               5                      10                      15

Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Leu Val Pro
               20                      25                      30

His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys
          35                      40                      45

Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys
    50                      55                      60

Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp
65                      70                      75                      80

Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu
               85                      90                      95

Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val
              100                     105                     110

Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg
              115                     120                     125

Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe
    130                     135                     140

Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu
145                     150                     155                     160
```

Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu
           165   170   175

Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser Leu Glu Cys Thr
          180   185   190

Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser
        195   200   205

Gly Thr Thr Val Leu Leu Pro Leu Val Ile Phe Phe Gly Leu Cys Leu
   210   215   220

Leu Ser Leu Leu Phe Ile Gly Leu Met Tyr Arg Tyr Gln Arg Trp Lys
225   230   235   240

Ser Lys Leu Tyr Ser Ile Val Cys Gly Lys Ser Thr Pro Glu Lys Glu
           245   250   255

Gly Glu Leu Glu Gly Thr Thr Thr Lys Pro Leu Ala Pro Asn Pro Ser
        260   265   270

Phe Ser Pro Thr Pro Gly Phe Thr Pro Thr Leu Gly Phe Ser Pro Val
      275   280   285

Pro Ser Ser Thr Phe Thr Ser Ser Ser Thr Tyr Thr Pro Gly Asp Cys
  290   295   300

Pro Asn Phe Ala Ala Pro Arg Arg Glu Val Ala Pro Pro Tyr Gln Gly
305   310   315   320

Ala Asp Pro Ile Leu Ala Thr Ala Leu Ala Ser Asp Pro Ile Pro Asn
          325   330   335

Pro Leu Gln Lys Trp Glu Asp Ser Ala His Lys Pro Gln Ser Leu Asp
        340   345   350

Thr Asp Asp Pro Ala Thr Leu Tyr Ala Val Val Glu Asn Val Pro Pro
      355   360   365

Leu Arg Trp Lys Glu Phe Val Arg Arg Leu Gly Leu Ser Asp His Glu
   370   375   380

Ile Asp Arg Leu Glu Leu Gln Asn Gly Arg Cys Leu Arg Glu Ala Gln
385   390   395   400

Tyr Ser Met Leu Ala Thr Trp Arg Arg Arg Thr Pro Arg Arg Glu Ala
        405   410   415

Thr Leu Glu Leu Leu Gly Arg Val Leu Arg Asp Met Asp Leu Leu Gly
      420   425   430

Cys Leu Glu Asp Ile Glu Glu Ala Leu Cys Gly Pro Ala Ala Leu Pro
      435   440   445

Pro Ala Pro Ser Leu Leu Arg
  450   455

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<210> 6
<211> 461
<212> PRT
<213> Homo sapiens

<400> 6
Met Ala Pro Val Ala Val Trp Ala Ala Leu Ala Val Gly Leu Glu Leu
  1               5                  10                  15

Trp Ala Ala Ala His Ala Leu Pro Ala Gln Val Ala Phe Thr Pro Tyr
             20                  25                  30

Ala Pro Glu Pro Gly Ser Thr Cys Arg Leu Arg Glu Tyr Tyr Asp Gln
         35                  40                  45

Thr Ala Gln Met Cys Cys Ser Lys Cys Ser Pro Gly Gln His Ala Lys
     50                  55                  60

Val Phe Cys Thr Lys Thr Ser Asp Thr Val Cys Asp Ser Cys Glu Asp
 65                  70                  75                  80

Ser Thr Tyr Thr Gln Leu Trp Asn Trp Val Pro Glu Cys Leu Ser Cys
                 85                  90                  95

Gly Ser Arg Cys Ser Ser Asp Gln Val Glu Thr Gln Ala Cys Thr Arg
            100                 105                 110

Glu Gln Asn Arg Ile Cys Thr Cys Arg Pro Gly Trp Tyr Cys Ala Leu
        115                 120                 125

Ser Lys Gln Glu Gly Cys Arg Leu Cys Ala Pro Leu Arg Lys Cys Arg
        130                 135                 140

Pro Gly Phe Gly Val Ala Arg Pro Gly Thr Glu Thr Ser Asp Val Val
145                 150                 155                 160

Cys Lys Pro Cys Ala Pro Gly Thr Phe Ser Asn Thr Thr Ser Ser Thr
                165                 170                 175

Asp Ile Cys Arg Pro His Gln Ile Cys Asn Val Val Ala Ile Pro Gly
            180                 185                 190

Asn Ala Ser Arg Asp Ala Val Cys Thr Ser Thr Ser Pro Thr Arg Ser
        195                 200                 205

Met Ala Pro Gly Ala Val His Leu Pro Gln Pro Val Ser Thr Arg Ser
    210                 215                 220

Gln His Thr Gln Pro Thr Pro Glu Pro Ser Thr Ala Pro Ser Thr Ser
225                 230                 235                 240

Phe Leu Leu Pro Met Gly Pro Ser Pro Pro Ala Glu Gly Ser Thr Gly
            245                 250                 255

Asp Phe Ala Leu Pro Val Gly Leu Ile Val Gly Val Thr Ala Leu Gly
            260                 265                 270

Leu Leu Ile Ile Gly Val Val Asn Cys Val Ile Met Thr Gln Val Lys
```

```
                275                    280                    285
```

```
Lys Lys Pro Leu Cys Leu Gln Arg Glu Ala Lys Val Pro His Leu Pro
    290                 295                 300
```

```
Ala Asp Lys Ala Arg Gly Thr Gln Gly Pro Glu Gln Gln His Leu Leu
305                 310                 315                     320
```

```
Ile Thr Ala Pro Ser Ser Ser Ser Ser Ser Leu Glu Ser Ser Ala Ser
                325                 330                 335
```

```
Ala Leu Asp Arg Arg Ala Pro Thr Arg Asn Gln Pro Gln Ala Pro Gly
            340                 345                 350
```

```
Val Glu Ala Ser Gly Ala Gly Glu Ala Arg Ala Ser Thr Gly Ser Ser
            355                 360                 365
```

```
Asp Ser Ser Pro Gly Gly His Gly Thr Gln Val Asn Val Thr Cys Ile
370                 375                 380
```

```
Val Asn Val Cys Ser Ser Ser Asp His Ser Ser Gln Cys Ser Ser Gln
385                 390                 395                     400
```

```
Ala Ser Ser Thr Met Gly Asp Thr Asp Ser Ser Pro Ser Glu Ser Pro
                405                 410                 415
```

```
Lys Asp Glu Gln Val Pro Phe Ser Lys Glu Glu Cys Ala Phe Arg Ser
            420                 425                 430
```

```
Gln Leu Glu Thr Pro Glu Thr Leu Leu Gly Ser Thr Glu Glu Lys Pro
            435                 440                 445
```

```
Leu Pro Leu Gly Val Pro Asp Ala Gly Met Lys Pro Ser
    450                 455                 460
```


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<210> 7
<211> 427
<212> PRT
<213> Homo sapiens
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<400> 7
Met Gly Ala Gly Ala Thr Gly Arg Ala Met Asp Gly Pro Arg Leu Leu
  1               5                  10                  15
```

```
Leu Leu Leu Leu Leu Gly Val Ser Leu Gly Gly Ala Lys Glu Ala Cys
            20                  25                  30
```

```
Pro Thr Gly Leu Tyr Thr His Ser Gly Glu Cys Cys Lys Ala Cys Asn
            35                  40                  45
```

```
Leu Gly Glu Gly Val Ala Gln Pro Cys Gly Ala Asn Gln Thr Val Cys
    50                  55                  60
```

```
Glu Pro Cys Leu Asp Ser Val Thr Phe Ser Asp Val Val Ser Ala Thr
 65                  70                  75                      80
```

```
Glu Pro Cys Lys Pro Cys Thr Glu Cys Val Gly Leu Gln Ser Met Ser
```

```
                     85                      90                      95

Ala Pro Cys Val Glu Ala Asp Asp Ala Val Cys Arg Cys Ala Tyr Gly
            100             105             110

Tyr Tyr Gln Asp Glu Thr Thr Gly Arg Cys Glu Ala Cys Arg Val Cys
        115             120             125

Glu Ala Gly Ser Gly Leu Val Phe Ser Cys Gln Asp Lys Gln Asn Thr
        130             135             140

Val Cys Glu Glu Cys Pro Asp Gly Thr Tyr Ser Asp Glu Ala Asn His
145             150             155             160

Val Asp Pro Cys Leu Pro Cys Thr Val Cys Glu Asp Thr Glu Arg Gln
            165             170             175

Leu Arg Glu Cys Thr Arg Trp Ala Asp Ala Glu Cys Glu Glu Ile Pro
            180             185             190

Gly Arg Trp Ile Thr Arg Ser Thr Pro Pro Glu Gly Ser Asp Ser Thr
        195             200             205

Ala Pro Ser Thr Gln Glu Pro Glu Ala Pro Pro Glu Gln Asp Leu Ile
        210             215             220

Ala Ser Thr Val Ala Gly Val Val Thr Thr Val Met Gly Ser Ser Gln
225             230             235             240

Pro Val Val Thr Arg Gly Thr Thr Asp Asn Leu Ile Pro Val Tyr Cys
            245             250             255

Ser Ile Leu Ala Ala Val Val Val Gly Leu Val Ala Tyr Ile Ala Phe
            260             265             270

Lys Arg Trp Asn Ser Cys Lys Gln Asn Lys Gln Gly Ala Asn Ser Arg
        275             280             285

Pro Val Asn Gln Thr Pro Pro Pro Glu Gly Glu Lys Leu His Ser Asp
    290             295             300

Ser Gly Ile Ser Val Asp Ser Gln Ser Leu His Asp Gln Gln Pro His
305             310             315             320

Thr Gln Thr Ala Ser Gly Gln Ala Leu Lys Gly Asp Gly Gly Leu Tyr
            325             330             335

Ser Ser Leu Pro Pro Ala Lys Arg Glu Glu Val Glu Lys Leu Leu Asn
            340             345             350

Gly Ser Ala Gly Asp Thr Trp Arg His Leu Ala Gly Glu Leu Gly Tyr
        355             360             365

Gln Pro Glu His Ile Asp Ser Phe Thr His Glu Ala Cys Pro Val Arg
    370             375             380

Ala Leu Leu Ala Ser Trp Ala Thr Gln Asp Ser Ala Thr Leu Asp Ala
385             390             395             400
```

```
Leu Leu Ala Ala Leu Arg Arg Ile Gln Arg Ala Asp Leu Val Glu Ser
            405                 410             415

Leu Cys Ser Glu Ser Thr Ala Thr Ser Pro Val
            420                 425


<210> 8
<211> 415
<212> PRT
<213> Homo sapiens

<400> 8
Met Arg Leu Pro Arg Ala Ser Ser Pro Cys Gly Leu Ala Trp Gly Pro
  1               5                 10                  15

Leu Leu Leu Gly Leu Ser Gly Leu Leu Val Ala Ser Gln Pro Gln Leu
            20                  25                  30

Val Pro Pro Tyr Arg Ile Glu Asn Gln Thr Cys Trp Asp Gln Asp Lys
            35                  40                  45

Glu Tyr Tyr Glu Pro Met His Asp Val Cys Cys Ser Arg Cys Pro Pro
      50                  55                  60

Gly Glu Phe Val Phe Ala Val Cys Ser Arg Ser Gln Asp Thr Val Cys
  65                  70                  75                  80

Lys Thr Cys Pro His Asn Ser Tyr Asn Glu His Trp Asn His Leu Ser
                85                  90                  95

Thr Cys Gln Leu Cys Arg Pro Cys Asp Ile Val Leu Gly Phe Glu Glu
            100                 105                 110

Val Ala Pro Cys Thr Ser Asp Arg Lys Ala Glu Cys Arg Cys Gln Pro
            115                 120                 125

Gly Met Ser Cys Val Tyr Leu Asp Asn Glu Cys Val His Cys Glu Glu
            130                 135                 140

Glu Arg Leu Val Leu Cys Gln Pro Gly Thr Glu Ala Glu Val Thr Asp
145                 150                 155                 160

Glu Ile Met Asp Thr Asp Val Asn Cys Val Pro Cys Lys Pro Gly His
                165                 170                 175

Phe Gln Asn Thr Ser Ser Pro Arg Ala Arg Cys Gln Pro His Thr Arg
                180                 185                 190

Cys Glu Ile Gln Gly Leu Val Glu Ala Ala Pro Gly Thr Ser Tyr Ser
            195                 200                 205

Asp Thr Ile Cys Lys Asn Pro Pro Glu Pro Gly Ala Met Leu Leu Leu
      210                 215                 220

Ala Ile Leu Leu Ser Leu Val Leu Phe Leu Leu Phe Thr Thr Val Leu
225                 230                 235                 240
```

Ala Cys Ala Trp Met Arg His Pro Ser Leu Cys Arg Lys Leu Gly Thr
                    245   250   255

Leu Leu Lys Arg His Pro Glu Gly Glu Glu Ser Pro Pro Cys Pro Ala
            260   265   270

Pro Arg Ala Asp Pro His Phe Pro Asp Leu Ala Glu Pro Leu Leu Pro
            275   280   285

Met Ser Gly Asp Leu Ser Pro Ser Pro Ala Gly Pro Pro Thr Ala Pro
    290   295   300

Ser Leu Glu Glu Val Val Leu Gln Gln Gln Ser Pro Leu Val Gln Ala
305   310   315   320

Arg Glu Leu Glu Ala Glu Pro Gly Glu His Gly Gln Val Ala His Gly
            325   330   335

Ala Asn Gly Ile His Val Thr Gly Gly Ser Val Thr Val Thr Gly Asn
            340   345   350

Ile Tyr Ile Tyr Asn Gly Pro Val Leu Gly Gly Thr Arg Gly Pro Gly
        355   360   365

Asp Pro Pro Ala Pro Pro Glu Pro Pro Tyr Pro Thr Pro Glu Glu Gly
    370   375   380

Ala Pro Gly Pro Ser Glu Leu Ser Thr Pro Tyr Gln Glu Asp Gly Lys
385   390   395   400

Ala Trp His Leu Ala Glu Thr Glu Thr Leu Gly Cys Gln Asp Leu
            405   410   415

<210> 9
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<212> PRT
<213> Homo sapiens

<400> 9
Met Leu Gly Ile Trp Thr Leu Leu Pro Leu Val Leu Thr Ser Val Ala
    1   5   10   15

Arg Leu Ser Ser Lys Ser Val Asn Ala Gln Val Thr Asp Ile Asn Ser
            20   25   30

Lys Gly Leu Glu Leu Arg Lys Thr Val Thr Thr Val Glu Thr Gln Asn
        35   40   45

Leu Glu Gly Leu His His Asp Gly Gln Phe Cys His Lys Pro Cys Pro
    50   55   60

Pro Gly Glu Arg Lys Ala Arg Asp Cys Thr Val Asn Gly Asp Glu Pro
65   70   75   80

Asp Cys Val Pro Cys Gln Glu Gly Lys Glu Tyr Thr Asp Lys Ala His
            85   90   95

```
Phe Ser Ser Lys Cys Arg Arg Cys Arg Leu Cys Asp Glu Gly His Gly
            100             105             110

Leu Glu Val Glu Ile Asn Cys Thr Arg Thr Gln Asn Thr Lys Cys Arg
            115             120             125

Cys Lys Pro Asn Phe Phe Cys Asn Ser Thr Val Cys Glu His Cys Asp
    130             135             140

Pro Cys Thr Lys Cys Glu His Gly Ile Ile Lys Glu Cys Thr Leu Thr
145             150             155             160

Ser Asn Thr Lys Cys Lys Glu Glu Gly Ser Arg Ser Asn Leu Gly Trp
            165             170             175

Leu Cys Leu Leu Leu Leu Pro Ile Pro Leu Ile Val Trp Val Lys Arg
            180             185             190

Lys Glu Val Gln Lys Thr Cys Arg Lys His Arg Lys Glu Asn Gln Gly
            195             200             205

Ser His Glu Ser Pro Thr Leu Asn Pro Glu Thr Val Ala Ile Asn Leu
    210             215             220

Ser Asp Val Asp Leu Ser Lys Tyr Ile Thr Thr Ile Ala Gly Val Met
225             230             235             240

Thr Leu Ser Gln Val Lys Gly Phe Val Arg Lys Asn Gly Val Asn Glu
            245             250             255

Ala Lys Ile Asp Glu Ile Lys Asn Asp Asn Val Gln Asp Thr Ala Glu
            260             265             270

Gln Lys Val Gln Leu Leu Arg Asn Trp His Gln Leu His Gly Lys Lys
            275             280             285

Glu Ala Tyr Asp Thr Leu Ile Lys Asp Leu Lys Lys Ala Asn Leu Cys
    290             295             300

Thr Leu Ala Glu Lys Ile Gln Thr Ile Ile Leu Lys Asp Ile Thr Ser
305             310             315             320

Asp Ser Glu Asn Ser Asn Phe Arg Asn Glu Ile Gln Ser Leu Val
            325             330             335
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<210> 10
<211> 260
<212> PRT
<213> Homo sapiens

<400> 10

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Met Ala Arg Pro His Pro Trp Trp Leu Cys Val Leu Gly Thr Leu Val
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Gly Leu Ser Ala Thr Pro Ala Pro Lys Ser Cys Pro Glu Arg His Tyr
            20              25              30
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Trp Ala Gln Gly Lys Leu Cys Cys Gln Met Cys Glu Pro Gly Thr Phe
       35   40   45

Leu Val Lys Asp Cys Asp Gln His Arg Lys Ala Ala Gln Cys Asp Pro
   50   55   60

Cys Ile Pro Gly Val Ser Phe Ser Pro Asp His His Thr Arg Pro His
 65   70   75   80

Cys Glu Ser Cys Arg His Cys Asn Ser Gly Leu Leu Val Arg Asn Cys
           85   90   95

Thr Ile Thr Ala Asn Ala Glu Cys Ala Cys Arg Asn Gly Trp Gln Cys
       100   105   110

Arg Asp Lys Glu Cys Thr Glu Cys Asp Pro Leu Pro Asn Pro Ser Leu
      115   120   125

Thr Ala Arg Ser Ser Gln Ala Leu Ser Pro His Pro Gln Pro Thr His
     130   135   140

Leu Pro Tyr Val Ser Glu Met Leu Glu Ala Arg Thr Ala Gly His Met
145   150   155   160

Gln Thr Leu Ala Asp Phe Arg Gln Leu Pro Ala Arg Thr Leu Ser Thr
          165   170   175

His Trp Pro Pro Gln Arg Ser Leu Cys Ser Ser Asp Phe Ile Arg Ile
      180   185   190

Leu Val Ile Phe Ser Gly Met Phe Leu Val Phe Thr Leu Ala Gly Ala
      195   200   205

Leu Phe Leu His Gln Arg Arg Lys Tyr Arg Ser Asn Lys Gly Glu Ser
   210   215   220

Pro Val Glu Pro Ala Glu Pro Cys Arg Tyr Ser Cys Pro Arg Glu Glu
225   230   235   240

Glu Gly Ser Thr Ile Pro Ile Gln Glu Asp Tyr Arg Lys Pro Glu Pro
          245   250   255

Ala Cys Ser Pro
         260

<210> 11
<211> 595
<212> PRT
<213> Homo sapiens

<400> 11
Met Arg Val Leu Leu Ala Ala Leu Gly Leu Leu Phe Leu Gly Ala Leu
  1   5   10   15

Arg Ala Phe Pro Gln Asp Arg Pro Phe Glu Asp Thr Cys His Gly Asn
       20   25   30

Pro Ser His Tyr Tyr Asp Lys Ala Val Arg Arg Cys Cys Tyr Arg Cys
     35   40   45

Pro Met Gly Leu Phe Pro Thr Gln Gln Cys Pro Gln Arg Pro Thr Asp
     50   55   60

Cys Arg Lys Gln Cys Glu Pro Asp Tyr Tyr Leu Asp Glu Ala Asp Arg
65   70   75   80

Cys Thr Ala Cys Val Thr Cys Ser Arg Asp Asp Leu Val Glu Lys Thr
            85   90   95

Pro Cys Ala Trp Asn Ser Ser Arg Val Cys Glu Cys Arg Pro Gly Met
          100   105   110

Phe Cys Ser Thr Ser Ala Val Asn Ser Cys Ala Arg Cys Phe Phe His
          115   120   125

Ser Val Cys Pro Ala Gly Met Ile Val Lys Phe Pro Gly Thr Ala Gln
     130   135   140

Lys Asn Thr Val Cys Glu Pro Ala Ser Pro Gly Val Ser Pro Ala Cys
145   150   155   160

Ala Ser Pro Glu Asn Cys Lys Glu Pro Ser Ser Gly Thr Ile Pro Gln
          165   170   175

Ala Lys Pro Thr Pro Val Ser Pro Ala Thr Ser Ser Ala Ser Thr Met
          180   185   190

Pro Val Arg Gly Gly Thr Arg Leu Ala Gln Glu Ala Ala Ser Lys Leu
          195   200   205

Thr Arg Ala Pro Asp Ser Pro Ser Ser Val Gly Arg Pro Ser Ser Asp
     210   215   220

Pro Gly Leu Ser Pro Thr Gln Pro Cys Pro Glu Gly Ser Gly Asp Cys
225   230   235   240

Arg Lys Gln Cys Glu Pro Asp Tyr Tyr Leu Asp Glu Ala Gly Arg Cys
          245   250   255

Thr Ala Cys Val Ser Cys Ser Arg Asp Asp Leu Val Glu Lys Thr Pro
          260   265   270

Cys Ala Trp Asn Ser Ser Arg Thr Cys Glu Cys Arg Pro Gly Met Ile
          275   280   285

Cys Ala Thr Ser Ala Thr Asn Ser Cys Ala Arg Cys Val Pro Tyr Pro
     290   295   300

Ile Cys Ala Ala Glu Thr Val Thr Lys Pro Gln Asp Met Ala Glu Lys
305   310   315   320

Asp Thr Thr Phe Glu Ala Pro Pro Leu Gly Thr Gln Pro Asp Cys Asn
          325   330   335

Pro Thr Pro Glu Asn Gly Glu Ala Pro Ala Ser Thr Ser Pro Thr Gln
         340   345   350

Ser Leu Leu Val Asp Ser Gln Ala Ser Lys Thr Leu Pro Ile Pro Thr
         355   360   365

Ser Ala Pro Val Ala Leu Ser Ser Thr Gly Lys Pro Val Leu Asp Ala
         370   375.   380

Gly Pro Val Leu Phe Trp Val Ile Leu Val Leu Val Val Val Val Gly
385   390   395   400

Ser Ser Ala Phe Leu Leu Cys His Arg Arg Ala Cys Arg Lys Arg Ile
         405   410   415

Arg Gln Lys Leu His Leu Cys Tyr Pro Val Gln Thr Ser Gln Pro Lys
         420   425   430

Leu Glu Leu Val Asp Ser Arg Pro Arg Arg Ser Ser Thr Gln Leu Arg
         435   440   445

Ser Gly Ala Ser Val Thr Glu Pro Val Ala Glu Glu Arg Gly Leu Met
         450   455   460

Ser Gln Pro Leu Met Glu Thr Cys His Ser Val Gly Ala Ala Tyr Leu
465   470   475   480

Glu Ser Leu Pro Leu Gln Asp Ala Ser Pro Ala Gly Gly Pro Ser Ser
             485   490   495

Pro Arg Asp Leu Pro Glu Pro Arg Val Ser Thr Glu His Thr Asn Asn
         500   505   510

Lys Ile Glu Lys Ile Tyr Ile Met Lys Ala Asp Thr Val Ile Val Gly
         515   520   525

Thr Val Lys Ala Glu Leu Pro Glu Gly Arg Gly Leu Ala Gly Pro Ala
         530   535   540

Glu Pro Glu Leu Glu Glu Glu Leu Glu Ala Asp His Thr Pro His Tyr
545   550   555   560

Pro Glu Gln Glu Thr Glu Pro Pro Leu Gly Ser Cys Ser Asp Val Met
             565   570   575

Leu Ser Val Glu Glu Glu Gly Lys Glu Asp Pro Leu Pro Thr Ala Ala
         580   585   590

Ser Gly Lys
         595

<210> 12
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<212> PRT
<213> Homo sapiens

<400> 12

Met Val Arg Leu Pro Leu Gln Cys Val Leu Trp Gly Cys Leu Leu Thr
1   5   10   15

Ala Val His Pro Glu Pro Pro Thr Ala Cys Arg Glu Lys Gln Tyr Leu
            20   25   30

Ile Asn Ser Gln Cys Cys Ser Leu Cys Gln Pro Gly Gln Lys Leu Val
        35   40   45

Ser Asp Cys Thr Glu Phe Thr Glu Thr Glu Cys Leu Pro Cys Gly Glu
    50   55   60

Ser Glu Phe Leu Asp Thr Trp Asn Arg Glu Thr His Cys His Gln His
65   70   75   80

Lys Tyr Cys Asp Pro Asn Leu Gly Leu Arg Val Gln Gln Lys Gly Thr
            85   90   95

Ser Glu Thr Asp Thr Ile Cys Thr Cys Glu Glu Gly Trp His Cys Thr
            100   105   110

Ser Glu Ala Cys Glu Ser Cys Val Leu His Arg Ser Cys Ser Pro Gly
        115   120   125

Phe Gly Val Lys Gln Ile Ala Thr Gly Val Ser Asp Thr Ile Cys Glu
    130   135   140

Pro Cys Pro Val Gly Phe Phe Ser Asn Val Ser Ser Ala Phe Glu Lys
145   150   155   160

Cys His Pro Trp Thr Ser Cys Glu Thr Lys Asp Leu Val Val Gln Gln
            165   170   175

Ala Gly Thr Asn Lys Thr Asp Val Val Cys Gly Pro Gln Asp Arg Leu
            180   185   190

Arg Ala Leu Val Val Ile Pro Ile Ile Phe Gly Ile Leu Phe Ala Ile
        195   200   205

Leu Leu Val Leu Val Phe Ile Lys Lys Val Ala Lys Lys Pro Thr Asn
    210   215   220

Lys Ala Pro His Pro Lys Gln Glu Pro Gln Glu Ile Asn Phe Pro Asp
225   230   235   240

Asp Leu Pro Gly Ser Asn Thr Ala Ala Pro Val Gln Glu Thr Leu His
            245   250   255

Gly Cys Gln Pro Val Thr Gln Glu Asp Gly Lys Glu Ser Arg Ile Ser
            260   265   270

Val Gln Glu Arg Gln
        275

<210> 13
<211> 255
<212> PRT

<213> Homo sapiens

<400> 13

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Met Gly Asn Ser Cys Tyr Asn Ile Val Ala Thr Leu Leu Leu Val Leu
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Asn Phe Glu Arg Thr Arg Ser Leu Gln Asp Pro Cys Ser Asn Cys Pro
            20              25              30

Ala Gly Thr Phe Cys Asp Asn Asn Arg Asn Gln Ile Cys Ser Pro Cys
        35              40              45

Pro Pro Asn Ser Phe Ser Ser Ala Gly Gly Gln Arg Thr Cys Asp Ile
    50              55              60

Cys Arg Gln Cys Lys Gly Val Phe Arg Thr Arg Lys Glu Cys Ser Ser
65              70              75                  80

Thr Ser Asn Ala Glu Cys Asp Cys Thr Pro Gly Phe His Cys Leu Gly
            85              90                  95

Ala Gly Cys Ser Met Cys Glu Gln Asp Cys Lys Gln Gly Gln Glu Leu
        100             105             110

Thr Lys Lys Gly Cys Lys Asp Cys Cys Phe Gly Thr Phe Asn Asp Gln
        115             120             125

Lys Arg Gly Ile Cys Arg Pro Trp Thr Asn Cys Ser Leu Asp Gly Lys
    130.            135             140

Ser Val Leu Val Asn Gly Thr Lys Glu Arg Asp Val Val Cys Gly Pro
145             150             155             160

Ser Pro Ala Asp Leu Ser Pro Gly Ala Ser Ser Val Thr Pro Pro Ala
            165             170             175

Pro Ala Arg Glu Pro Gly His Ser Pro Gln Ile Ile Ser Phe Phe Leu
        180             185             190

Ala Leu Thr Ser Thr Ala Leu Leu Phe Leu Leu Phe Phe Leu Thr Leu
        195             200             205

Arg Phe Ser Val Val Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe
    210             215             220

Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly
225             230             235             240

Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu
            245             250             255
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<210> 14
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<212> PRT
<213> Homo sapiens

<400> 14

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Met Cys Val Gly Ala Arg Arg Leu Gly Arg Gly Pro Cys Ala Ala Leu
 1               5                  10             15

Leu Leu Leu Gly Leu Gly Leu Ser Thr Val Thr Gly Leu His Cys Val
            20              25              30

Gly Asp Thr Tyr Pro Ser Asn Asp Arg Cys Cys His Glu Cys Arg Pro
        35              40              45

Gly Asn Gly Met Val Ser Arg Cys Ser Arg Ser Gln Asn Thr Val Cys
    50              55              60

Arg Pro Cys Gly Pro Gly Phe Tyr Asn Asp Val Val Ser Ser Lys Pro
65              70              75              80

Cys Lys Pro Cys Thr Trp Cys Asn Leu Arg Ser Gly Ser Glu Arg Lys
            85              90              95

Gln Leu Cys Thr Ala Thr Gln Asp Thr Val Cys Arg Cys Arg Ala Gly
        100             105             110

Thr Gln Pro Leu Asp Ser Tyr Lys Pro Gly Val Asp Cys Ala Pro Cys
    115             120             125

Pro Pro Gly His Phe Ser Pro Gly Asp Asn Gln Ala Cys Lys Pro Trp
    130             135             140

Thr Asn Cys Thr Leu Ala Gly Lys His Thr Leu Gln Pro Ala Ser Asn
145             150             155             160

Ser Ser Asp Ala Ile Cys Glu Asp Arg Asp Pro Pro Ala Thr Gln Pro
            165             170             175

Gln Glu Thr Gln Gly Pro Pro Ala Arg Pro Ile Thr Val Gln Pro Thr
        180             185             190

Glu Ala Trp Pro Arg Thr Ser Gln Gly Pro Ser Thr Arg Pro Val Glu
        195             200             205

Val Pro Gly Gly Arg Ala Val Ala Ala Ile Leu Gly Leu Gly Leu Val
    210             215             220

Leu Gly Leu Leu Gly Pro Leu Ala Ile Leu Leu Ala Leu Tyr Leu Leu
225             230             235             240

Arg Arg Asp Gln Arg Leu Pro Pro Asp Ala His Lys Pro Pro Gly Gly
            245             250             255

Gly Ser Phe Arg Thr Pro Ile Gln Glu Glu Gln Ala Asp Ala His Ser
        260             265             270

Thr Leu Ala Lys Ile
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<210> 15
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<212> PRT

<213> Homo sapiens

<400> 15

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Met Lys Ser Val Leu Tyr Leu Tyr Ile Leu Phe Leu Ser Cys Ile Ile
 1               5                  10              15

Ile Asn Gly Arg Asp Ala Ala Pro Tyr Thr Pro Pro Asn Gly Lys Cys
            20              25              30

Lys Asp Thr Glu Tyr Lys Arg His Asn Leu Cys Cys Leu Ser Cys Pro
        35              40              45

Pro Gly Thr Tyr Ala Ser Arg Leu Cys Asp Ser Lys Thr Asn Thr Gln
    50              55              60

Cys Thr Pro Cys Gly Ser Gly Thr Phe Thr Ser Arg Asn Asn His Leu
65              70              75              80

Pro Ala Cys Leu Ser Cys Asn Gly Arg Cys Asn Ser Asn Gln Val Glu
            85              90              95

Thr Arg Ser Cys Asn Thr Thr His Asn Arg Ile Cys Glu Cys Ser Pro
            100             105             110

Gly Tyr Tyr Cys Leu Leu Lys Gly Ser Ser Gly Cys Lys Ala Cys Val
        115             120             125

Ser Gln Thr Lys Cys Gly Ile Gly Tyr Gly Val Ser Gly His Thr Ser
    130             135             140

Val Gly Asp Val Ile Cys Ser Pro Cys Gly Phe Gly Thr Tyr Ser His
145             150             155             160

Thr Val Ser Ser Ala Asp Lys Cys Glu Pro Val Pro Asn Asn Thr Phe
            165             170             175

Asn Tyr Ile Asp Val Glu Ile Thr Leu Tyr Pro Val Asn Asp Thr Ser
        180             185             190

Cys Thr Arg Thr Thr Thr Thr Gly Leu Ser Glu Ser Ile Leu Thr Ser
    195             200             205

Glu Leu Thr Ile Thr Met Asn His Thr Asp Cys Asn Pro Val Phe Arg
    210             215             220

Glu Glu Tyr Phe Ser Val Leu Asn Lys Val Ala Thr Ser Gly Phe Phe
225             230             235             240

Thr Gly Glu Asn Arg Tyr Gln Asn Ile Ser Lys Val Cys Thr Leu Asn
            245             250             255

Phe Glu Ile Lys Cys Asn Asn Lys Gly Ser Ser Phe Lys Gln Leu Thr
        260             265             270

Lys Ala Lys Asn Asp Asp Gly Met Met Ser His Ser Glu Thr Val Thr
        275             280             285

Leu Ala Gly Asp Cys Leu Ser Ser Val Asp Ile Tyr Ile Leu Tyr Ser
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            290   295   300

Asn Thr Asn Ala Gln Asp Tyr Glu Thr Asp Thr Ile Ser Tyr Arg Val
305   310   315   320

Gly Asn Val Leu Asp Asp Asp Ser His Met Pro Gly Ser Cys Asn Ile
                  325   330   335

His Lys Pro Ile Thr Asn Ser Lys Pro Thr Arg Phe Leu
              340   345

<210> 16
<211> 355
<212> PRT
<213> Homo sapiens

<400> 16
Met Lys Ser Tyr Ile Leu Leu Leu Leu Leu Ser Cys Ile Ile Ile Ile
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Asn Ser Asp Ile Thr Pro His Glu Pro Ser Asn Gly Lys Cys Lys Asp
              20   25   30

Asn Glu Tyr Lys Arg His His Leu Cys Cys Leu Ser Cys Pro Pro Gly
          35   40   45

Thr Tyr Ala Ser Arg Leu Cys Asp Ser Lys Thr Asn Thr Asn Thr Gln
      50   55   60

Cys Thr Pro Cys Ala Ser Asp Thr Phe Thr Ser Arg Asn Asn His Leu
 65   70   75   80

Pro Ala Cys Leu Ser Cys Asn Gly Arg Cys Asp Ser Asn Gln Val Glu
              85   90   95

Thr Arg Ser Cys Asn Thr Thr His Asn Arg Ile Cys Asp Cys Ala Pro
              100   105   110

Gly Tyr Tyr Cys Phe Leu Lys Gly Ser Ser Gly Cys Lys Ala Cys Val
          115   120   125

Ser Gln Thr Lys Cys Gly Ile Gly Tyr Gly Val Ser Gly His Thr Pro
          130   135   140

Thr Gly Asp Val Val Cys Ser Pro Cys Gly Leu Gly Thr Tyr Ser His
145   150   155   160

Thr Val Ser Ser Val Asp Lys Cys Glu Pro Val Pro Ser Asn Thr Phe
                  165   170   175

Asn Tyr Ile Asp Val Glu Ile Asn Leu Tyr Pro Val Asn Asp Thr Ser
              180   185   190

Cys Thr Arg Thr Thr Thr Thr Gly Leu Ser Glu Ser Ile Ser Thr Ser
          195   200   205

Glu Leu Thr Ile Thr Met Asn His Lys Asp Cys Asp Pro Val Phe Arg
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          210                     215                     220
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Asn Gly Tyr Phe Ser Val Leu Asn Glu Val Ala Thr Ser Gly Phe Phe
225   230   235   240

Thr Gly Gln Asn Arg Tyr Gln Asn Ile Ser Lys Val Cys Thr Leu Asn
                245   250   255

Phe Glu Ile Lys Cys Asn Asn Lys Asp Ser Tyr Ser Ser Ser Lys Gln
            260   265   270

Leu Thr Lys Thr Lys Asn Asp Asp Asp Ser Ile Met Pro His Ser Glu
        275   280   285

Ser Val Thr Leu Val Gly Asp Cys Leu Ser Ser Val Asp Ile Tyr Ile
    290   295   300

Leu Tyr Ser Asn Thr Asn Thr Gln Asp Tyr Glu Thr Asp Thr Ile Ser
305   310   315   320

Tyr His Val Gly Asn Val Leu Asp Val Asp Ser His Met Pro Gly Arg
            325   330   335

Cys Asp Thr His Lys Leu Ile Thr Asn Ser Asn Ser Gln Tyr Pro Thr
        340   345   350

His Phe Leu
        355

<210> 17
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tgctgccggt gccggctgta cgcggagtgg cagaaacacn nacntacccc tggcgggacg  180
nagagacagg ggagcggctg gtgtntnccc antgcccccc aggcaccttt ntgcagcggc  240
cgtgccgncg agacagcccc acgacgtgtg gcccgtntcc accgcgccac tacacgcatt  300
ctggaactac ctggagcgct gncgttactn caacgtcctc tgcggggagc gtnaggagga  360
ggcacgggtt tnccacgnca accacaaccg nggnttaccg tngccgnacc ggtttcttcg  420
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gagcntgccg tcatcgactt tttggctttc caggacatct ccatcaagag gctgcagcgg  180
ctgctcangc c                                                       191


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<213> Homo sapiens

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cgcccatggc agaaacaccc acctac   26

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<400> 21
cgcaagcttc tcctcagctc ctgcagtg   28

<210> 22
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cgcggtaccc tctttcagtg caagtg   26

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